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10/577,373	04/28/2006	Masakazu Ogasawara	MTS-3546US	9825

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EXAMINER	
RICHER, AARON M	

ART UNIT	PAPER NUMBER
2628	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/577,373	OGASAWARA ET AL.	
	Examiner	Art Unit	
	AARON M. RICHER	2628	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *06 November 2008*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *10-23,25-63,65 and 66* is/are pending in the application.

4a) Of the above claim(s) *10,12,14,16,17,20,22,38-63,65 and 66* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *11,13,15,18,19,21,23 and 25-37* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *20081013*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Specification

1. The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o). Correction of the following is required: The term "computer usable medium", as recited in claims 25 and 37, does not appear in the specification.

Claim Objections

2. Claim 11 is objected to because of the following informalities: In lines 5, 10, and 18, the word "a" should precede the beginning of the lines.

3. Claim 25 is objected to because of the following informalities: In line 19, "said display apparatus which makes" should simply be "said display apparatus makes" in order to be grammatically correct. In line 20, "there primary colors" should be "three primary colors". In line 21, "mixing ration" should be "mixing ratio". These appear to be typographical errors. Appropriate correction is required.

4. Claim 26 is objected to because of the following informalities: In lines 5, 8, 12, and 18, the word "a" should precede the beginning of the lines.

5. Claim 37 is objected to because of the following informalities: In line 20, "said display apparatus which makes" should simply be "said display apparatus makes" in order to be grammatically correct. In line 22, "mixing ration" should be "mixing ratio". These appear to be typographical errors. Appropriate correction is required.

Claim Rejections - 35 USC § 112

6. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

7. The claims are generally narrative and indefinite, failing to conform with current U.S. practice. They appear to be a literal translation into English from a foreign document and are replete with grammatical and idiomatic errors.

8. Claims 11, 19, 23, 25, 28, 29, and 31 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

9. Claim 11 recites the limitations "said first chrominance signals" and "said second chrominance signals" in lines 12-13. There is insufficient antecedent basis for these limitations in the claim.

10. Claim 19 recites the limitation "said predetermined color" in line 3. There is insufficient antecedent basis for this limitation in the claim.

11. Claim 23 recites the limitations "said first chrominance signals" and "said second chrominance signals" in lines 11-12. There is insufficient antecedent basis for these limitations in the claim.

12. Claim 25 recites the limitations "said first chrominance signals" and "said second chrominance signals" in lines 12-13. There is insufficient antecedent basis for these limitations in the claim.

13. Claim 28 recites the limitation "said predetermined plurality of dot clock signals" in lines 7-8. There is insufficient antecedent basis for this limitation in the claim.

14. Claim 29 recites the limitation "said predetermined plurality of horizontal periods" in lines 7-8. There is insufficient antecedent basis for this limitation in the claim.

15. Claim 31 recites the limitation "performs control so as to be displayed in turn spatially". It is unclear from this limitation what is being displayed.

Claim Rejections - 35 USC § 101

16. 35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

17. Claims 23, 25, 36, and 37 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

18. Claims 23 and 36 are rejected under 35 U.S.C. 101 as not falling within one of the four statutory categories of invention. While the claims recite a series of steps or acts to be performed, a statutory "process" under 35 U.S.C. 101 must (1) be tied to another statutory category (such as a particular apparatus), or (2) transform underlying subject matter (such as an article or material) to a different state or thing (Reference the May 15, 2008 memorandum issued by Deputy Commissioner for Patent Examining Policy, John J. Love, titled "Clarification of 'Processes' under 35 U.S.C. 101"). The instant claims neither transform underlying subject matter nor positively tie to another statutory category that accomplishes the claimed method steps, and therefore do not qualify as a statutory process. The claims do not recite what apparatus performs such steps as color detection, color correction, control, display, and height generation.

19. Claims 25 and 37 each recite a "computer usable medium". Since this term does not have antecedent basis in the specification, as noted above, examiner must look to similar terms to discover the meaning of the term. Applicant's specification discusses a "recording medium" which encompasses a "transmission medium", which

can be the Internet, light, radio waves, and acoustic waves (see p. 196, section 0435 of applicant's specification). Such transmission media are clearly non-statutory under 35 USC 101. Regarding a computer program product as a signal, see MPEP 2106 which states:

> For example, a claim reciting only a musical composition, literary work, compilation of data, >signal,< or legal document (e.g., an insurance policy) per se does not appear to be a process, machine, manufacture, or composition of matter.See, e.g.,In re Nuitjen, Docket no. 2006-1371 (Fed. Cir. Sept. 20, 2007)(slip. op. at 18)("A transitory, propagating signal like Nuitjen's is not a process, machine, manufacture, or composition of matter.' ... Thus, such a signal cannot be patentable subject matter.").

Claim Rejections - 35 USC § 103

20. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

21. Claims 11, 15, 18, 23, 25, 26, 31, 33, 34, 36, and 37 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gruzdev (U.S. Patent 6,868,179) in view of Higgins (U.S. Patent 7,176,935).

22. As to claim 11, Gruzdev discloses an apparatus comprising:

a color correction instrument which performs a first color correction of increasing saturation of said chrominance signals (col. 7, lines 38-59; saturation is increased by a multiplier in some color ranges) and a second color correction of increasing a white color component of said chrominance signals (col. 8, lines 18-43; in oversaturated color regions, saturation can be reduced, which increases a white component of the color), when a predetermined color component exists in said chrominance signals

corresponding to said pixel (col. 7, line 60-col. 8, line 17; default color ranges can be specified for correction, such as skin tones, grass, sky, etc.); and

a height generation instrument which gives, when there is a region where a plurality of pixels having said predetermined color component exist adjacently (col. 7, line 60-col. 8, line 17; the use of "sub-regions" indicates that the pixels with sky/grass/skin colors are adjacent to each other), at least height difference in saturation to said region by selecting either of said first chrominance signals and said second chrominance signals for every pixel of said region according to a predetermined pattern for selecting said first chrominance signals obtained by said first color correction, and said second chrominance signals obtained by said second color correction in turn for every one pixel or a plurality of adjacent pixels (col. 9, lines 33-53; a pattern is generated based on a lookup table; note that saturation may be scaled from 0.7 to 2.0, meaning that in some cases in the pattern, saturation is decreased and white is increased, while for other cases, saturation is increased).

The Gruzdev reference is for writing new RGB values and does not deal with converting such values to four-color values for display or displaying them. Higgins, however, discloses an increasing or decreasing of saturation (col. 5, lines 18-47) and converting to RGBW color space (col. 7, line 54-col. 8, line 3; col. 8, lines 29-50) for display. The motivation for this gamut conversion is to take advantage of a new class of displays (col. 3, lines 34-54). It would have been obvious to one skilled in the art to modify Gruzdev to take the modified saturation values and convert from RGB to RGBW in order to establish compatibility with advanced display systems as taught by Higgins.

23. As to claim 15, Gruzdev discloses a display apparatus wherein said three primary colors are red, green, and blue (col. 3, lines 7-12; col. 10, lines 52-59).

24. As to claim 18, see the rejection to claim 15.

25. As to claim 23, see the rejection to claim 11.

26. As to claim 25, see the rejection to claim 11.

27. As to claim 26, see the rejection to claim 11.

28. As to claim 31, Gruzdev discloses an apparatus wherein said control instrument performs control so that a chrominance signal which does not include said color component may be displayed without performing said color correction (col. 7, line 60-col. 8, line 17; colors outside the specified range are displayed using a "normal" color table), and performs control so as to be displayed in turn spatially, where it is assumed that all the chrominance signals displayed in a pixel of said predetermined region include said predetermined color component (col. 7, line 60-col. 8, line 17; all colors in specific sub-ranges are corrected as it is assumed they have the specific colors that need correction).

29. As to claim 33, see the rejection to claim 15.

30. As to claim 34, see the rejection to claim 15.

31. As to claim 36, see the rejection to claim 11.

32. As to claim 37, see the rejection to claim 11.

33. Claims 13, 19, 21, 27-30, 32, and 35 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gruzdev in view of Higgins and further in view of Okada (U.S. Patent 6,766,052).

34. As to claim 13, Gruzdev discloses a display apparatus wherein a predetermined color corresponds to sky color or skin color, as noted above, but does not disclose an apparatus wherein the predetermined color is yellow, magenta, or cyan. Okada, however, discloses a saturation enhancement apparatus wherein a yellow component has enhanced saturation, since a blue component is reduced in this area (col. 13, lines 14-31). The motivation for this is to emphasize certain character regions of a display (in this case with a "yellow" color) without an unnecessarily harsh display (col. 1, lines 18-26). It would have been obvious to one skilled in the art to modify Gruzdev and Higgins to increase saturation of a yellow color in order to emphasize certain regions as taught by Okada.

35. As to claim 19, see the rejection to claim 13. Claim 19 further recites that when said predetermined color is yellow, a second color correction is performed by increasing a B signal of said chrominance signals, when a yellow color component exists in said chrominance signals corresponding to said pixel. This is further disclosed by Okada at col. 8, lines 35-52, which describe a second color correction pattern using a different value, in this case 4, which involves an increase of blue level compared to the other value, which is 5. See figs. 6 and 7 ("yellow" chart) for disclosure of this. Motivation for such an increase/reduction in blue values can be found in the rejection to claim 13.

36. As to claim 21, neither Gruzdev nor Higgins discloses an apparatus wherein said height generation instrument performs the selection of said first chrominance signals and said second chrominance signals using a signal of determining timing when said display instrument performs display in said pixel. Okada, however, discloses using

three different correction signals based on a timing signal (fig. 28; col. 22, lines 36-53). The motivation for using such a feature in the Okada reference can be found in the rejection to claim 13.

37. As to claim 27, neither Gruzdev nor Higgins discloses an apparatus wherein said every predetermined plural pixel units is every two pixel units. Okada, however, discloses a control instrument that displays two different correction patterns adjacent (fig. 33a, 33b, 34a, 34b; col. 25, line 27-col. 26, line 38; in the case where a skeleton pixel is adjacent to a non-skeleton pixel, the patterns alternate), which would read on a predetermined two pixel unit pattern. The motivation for using such a feature in the Okada reference can be found in the rejection to claim 13.

38. As to claim 28, neither Gruzdev nor Higgins discloses an apparatus wherein in the case that said control instrument performs control so that said first chrominance signal and said second chrominance signal may be displayed spatially in turn in every predetermined plural pixel units, which are horizontally adjacent, in said predetermined region, said control instrument switches and selects said first chrominance signal and said second chrominance signal in every said predetermined plurality of dot clock signals for determining display timing of every pixel in said predetermined region. Okada, however, discloses a control instrument that displays two different correction patterns horizontally adjacent (fig. 33a, 33b, 34a, 34b; col. 25, line 27-col. 26, line 38; in the case where a skeleton pixel is adjacent to a non-skeleton pixel, the patterns alternate). Okada further discloses that patterns are switched every predetermined

number of dot clock signals, as noted in the rejection to claim 21. Motivation for inclusion of such features can be found in the rejection to claim 13.

39. As to claim 29, see the rejection to claim 28. Claim 29 recites similar limitations but uses vertically adjacent pixels rather than horizontally adjacent pixels. It is noted that if a skeleton pixel is vertically adjacent to a non-skeleton pixel in the Okada reference, the patterns will alternate, much as they would for horizontally adjacent pixels.

40. As to claim 30, see the rejection to claim 21.

41. As to claim 32, see the rejection to claim 13.

42. As to claim 35, see the rejection to claim 19.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to AARON M. RICHER whose telephone number is (571)272-7790. The examiner can normally be reached on weekdays from 8:30AM-5:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kee Tung can be reached on (571) 272-7794. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Aaron M Richer/
Examiner, Art Unit 2628
1/19/09